

Release notes for ENDF/B Development n-042_Mo_092
evaluation

ENDF
B-VII.dev

April 26, 2017

- checkr Warnings:

1. A previous error halted parsing of the current section
MAT=4225, MF= 1, MT=451 (1): Parsing stopped

```
ERROR(S) FOUND IN MAT=4225, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER      359 TO      433
```

2. Generic warning message
MAT=4225, MF= 3, MT=111 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT=111
WARNING(S)      IN MAT=4225, MF= 3, MT=203
```

3. Generic warning message
MAT=4225, MF= 3, MT=203 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT=203
WARNING(S)      IN MAT=4225, MF= 3, MT=204
```

4. Generic warning message
MAT=4225, MF= 3, MT=204 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT=204
WARNING(S)      IN MAT=4225, MF= 3, MT=205
```

5. Generic warning message
MAT=4225, MF= 3, MT=205 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT=205
WARNING(S)      IN MAT=4225, MF= 3, MT=206
```

6. Generic warning message
MAT=4225, MF= 3, MT=206 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT=206
WARNING(S)      IN MAT=4225, MF= 3, MT=207
```

7. Generic warning message
MAT=4225, MF= 6, MT= 91 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT= 91
WARNING(S)      IN MAT=4225, MF= 6, MT=203
```

8. Generic warning message
MAT=4225, MF= 6, MT=203 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT=203
WARNING(S)      IN MAT=4225, MF= 6, MT=204
```

9. Generic warning message
MAT=4225, MF= 6, MT=204 (1): Warning

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT=204
WARNING(S)      IN MAT=4225, MF= 6, MT=205
```

10. Generic warning message
MAT=4225, MF= 6, MT=205 (1): Warning

```

ERROR(S) FOUND IN MAT=4225, MF= 6, MT=205
WARNING(S)      IN MAT=4225, MF= 6, MT=206

```

11. Generic warning message
MAT=4225, MF= 6, MT=206 (1): Warning

```

ERROR(S) FOUND IN MAT=4225, MF= 6, MT=206
WARNING(S)      IN MAT=4225, MF= 6, MT=207

```

• checkr Errors:

1. A variable is outside the allowed ENDF range
MAT=4225, MF= 1, MT=451 (0): Variable range

```

ERROR(S) FOUND IN MAT=4225, MF= 1, MT=451
MOD =      1 OUT OF RANGE      0 -      0      RECORD NUMBER      359

```

2. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 2, MT=151 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4225, MF= 2, MT=151
SECTION  2/151 NOT IN DIRECTORY      RECORD NUMBER      435

```

3. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT= 1 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 1
SECTION  3/ 1 NOT IN DIRECTORY      RECORD NUMBER      553

```

4. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT= 2 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 2
SECTION  3/ 2 NOT IN DIRECTORY      RECORD NUMBER      720

```

5. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT= 4 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 4
SECTION  3/ 4 NOT IN DIRECTORY      RECORD NUMBER      887

```

6. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT= 16 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 16
SECTION  3/ 16 NOT IN DIRECTORY      RECORD NUMBER      908

```

7. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=22$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 22
SECTION 3/ 22 NOT IN DIRECTORY          RECORD NUMBER    915
```

8. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=28$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 28
SECTION 3/ 28 NOT IN DIRECTORY          RECORD NUMBER    924
```

9. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=51$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 51
SECTION 3/ 51 NOT IN DIRECTORY          RECORD NUMBER    933
```

10. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=52$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 52
SECTION 3/ 52 NOT IN DIRECTORY          RECORD NUMBER    946
```

11. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=53$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 53
SECTION 3/ 53 NOT IN DIRECTORY          RECORD NUMBER    962
```

12. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=54$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 54
SECTION 3/ 54 NOT IN DIRECTORY          RECORD NUMBER    977
```

13. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=55$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 55
SECTION 3/ 55 NOT IN DIRECTORY          RECORD NUMBER    992
```

14. Missing a section in directory so your directory is messed up. This error will break everything else

$MAT=4225$, $MF=3$, $MT=56$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 56
SECTION 3/ 56 NOT IN DIRECTORY          RECORD NUMBER   1006
```

15. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 57 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 57
SECTION 3/ 57 NOT IN DIRECTORY          RECORD NUMBER    1020
```

16. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 58 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 58
SECTION 3/ 58 NOT IN DIRECTORY          RECORD NUMBER    1034
```

17. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 59 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 59
SECTION 3/ 59 NOT IN DIRECTORY          RECORD NUMBER    1047
```

18. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 60 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 60
SECTION 3/ 60 NOT IN DIRECTORY          RECORD NUMBER    1060
```

19. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 61 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 61
SECTION 3/ 61 NOT IN DIRECTORY          RECORD NUMBER    1073
```

20. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 62 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 62
SECTION 3/ 62 NOT IN DIRECTORY          RECORD NUMBER    1085
```

21. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 63 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 63
SECTION 3/ 63 NOT IN DIRECTORY          RECORD NUMBER    1097
```

22. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 3, MT= 64 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 3, MT= 64
SECTION 3/ 64 NOT IN DIRECTORY          RECORD NUMBER    1108
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=65$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=65$ | |
| SECTION 3/ 65 NOT IN DIRECTORY | RECORD NUMBER 1119 |
24. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=66$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=66$ | |
| SECTION 3/ 66 NOT IN DIRECTORY | RECORD NUMBER 1130 |
25. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=91$ (0): *Directory (b)*
- | | |
|---|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=91$ | |
| SECTION 3/ 91 NOT IN DIRECTORY | RECORD NUMBER 1141 |
26. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=102$ (0): *Directory (b)*
- | | |
|--|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=102$ | |
| SECTION 3/102 NOT IN DIRECTORY | RECORD NUMBER 1151 |
27. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=103$ (0): *Directory (b)*
- | | |
|--|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=103$ | |
| SECTION 3/103 NOT IN DIRECTORY | RECORD NUMBER 1171 |
28. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=104$ (0): *Directory (b)*
- | | |
|--|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=104$ | |
| SECTION 3/104 NOT IN DIRECTORY | RECORD NUMBER 1186 |
29. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=105$ (0): *Directory (b)*
- | | |
|--|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=105$ | |
| SECTION 3/105 NOT IN DIRECTORY | RECORD NUMBER 1198 |
30. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4225$, $MF=3$, $MT=106$ (0): *Directory (b)*
- | | |
|--|--------------------|
| ERROR(S) FOUND IN $MAT=4225$, $MF=3$, $MT=106$ | |
| SECTION 3/106 NOT IN DIRECTORY | RECORD NUMBER 1207 |

31. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT=107 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 3, MT=107 | | |
| SECTION 3/107 NOT IN DIRECTORY | RECORD NUMBER | 1220 |
32. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT=111 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 3, MT=111 | | |
| SECTION 3/111 NOT IN DIRECTORY | RECORD NUMBER | 1235 |
33. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT=203 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 3, MT=203 | | |
| SECTION 3/203 NOT IN DIRECTORY | RECORD NUMBER | 1247 |
34. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT=204 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 3, MT=204 | | |
| SECTION 3/204 NOT IN DIRECTORY | RECORD NUMBER | 1313 |
35. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT=205 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 3, MT=205 | | |
| SECTION 3/205 NOT IN DIRECTORY | RECORD NUMBER | 1325 |
36. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT=206 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 3, MT=206 | | |
| SECTION 3/206 NOT IN DIRECTORY | RECORD NUMBER | 1334 |
37. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 3, MT=207 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 3, MT=207 | | |
| SECTION 3/207 NOT IN DIRECTORY | RECORD NUMBER | 1347 |
38. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 4, MT= 2 (0): Directory (b)
- | | | |
|--|---------------|------|
| ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 2 | | |
| SECTION 4/ 2 NOT IN DIRECTORY | RECORD NUMBER | 1390 |

39. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 51 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 51
SECTION 4/ 51 NOT IN DIRECTORY RECORD NUMBER 1551

40. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 52 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 52
SECTION 4/ 52 NOT IN DIRECTORY RECORD NUMBER 1640

41. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 53 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 53
SECTION 4/ 53 NOT IN DIRECTORY RECORD NUMBER 1669

42. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 54 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 54
SECTION 4/ 54 NOT IN DIRECTORY RECORD NUMBER 1698

43. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 55 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 55
SECTION 4/ 55 NOT IN DIRECTORY RECORD NUMBER 1727

44. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 56 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 56
SECTION 4/ 56 NOT IN DIRECTORY RECORD NUMBER 1756

45. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 57 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 57
SECTION 4/ 57 NOT IN DIRECTORY RECORD NUMBER 1785

46. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 58 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 58
SECTION 4/ 58 NOT IN DIRECTORY RECORD NUMBER 1854

47. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 59 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 59
SECTION 4/ 59 NOT IN DIRECTORY RECORD NUMBER 1883

48. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 60 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 60
SECTION 4/ 60 NOT IN DIRECTORY RECORD NUMBER 1912

49. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 61 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 61
SECTION 4/ 61 NOT IN DIRECTORY RECORD NUMBER 1984

50. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 62 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 62
SECTION 4/ 62 NOT IN DIRECTORY RECORD NUMBER 2013

51. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 63 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 63
SECTION 4/ 63 NOT IN DIRECTORY RECORD NUMBER 2042

52. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 64 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 64
SECTION 4/ 64 NOT IN DIRECTORY RECORD NUMBER 2071

53. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 65 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 65
SECTION 4/ 65 NOT IN DIRECTORY RECORD NUMBER 2100

54. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 4, MT= 66 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF= 4, MT= 66
SECTION 4/ 66 NOT IN DIRECTORY RECORD NUMBER 2129

55. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT= 16 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT= 16
SECTION 6/ 16 NOT IN DIRECTORY          RECORD NUMBER    2189
```

56. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT= 22 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT= 22
SECTION 6/ 22 NOT IN DIRECTORY          RECORD NUMBER    2485
```

57. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT= 28 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT= 28
SECTION 6/ 28 NOT IN DIRECTORY          RECORD NUMBER    3052
```

58. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT= 91 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT= 91
SECTION 6/ 91 NOT IN DIRECTORY          RECORD NUMBER    3640
```

59. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT=203 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT=203
SECTION 6/203 NOT IN DIRECTORY          RECORD NUMBER    4555
```

60. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT=204 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT=204
SECTION 6/204 NOT IN DIRECTORY          RECORD NUMBER    5076
```

61. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT=205 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT=205
SECTION 6/205 NOT IN DIRECTORY          RECORD NUMBER    5317
```

62. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4225, MF= 6, MT=206 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4225, MF= 6, MT=206
SECTION 6/206 NOT IN DIRECTORY          RECORD NUMBER    5413
```

63. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF= 6, MT=207 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4225, MF= 6, MT=207
SECTION 6/207 NOT IN DIRECTORY RECORD NUMBER 5611
64. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=12, MT=102 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4225, MF=12, MT=102
SECTION 12/102 NOT IN DIRECTORY RECORD NUMBER 6158
65. Missing a gamma spectrum for continuum of gammas
MAT=4225, MF=12, MT=102 (1): No gamma spectrum
- ERROR(S) FOUND IN MAT=4225, MF=12, MT=102
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
66. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=13, MT= 3 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4225, MF=13, MT= 3
SECTION 13/ 3 NOT IN DIRECTORY RECORD NUMBER 6167
67. Missing a gamma spectrum for continuum of gammas
MAT=4225, MF=13, MT= 3 (1): No gamma spectrum
- ERROR(S) FOUND IN MAT=4225, MF=13, MT= 3
CONTINUUM PHOTONS REQUIRE A SECTION IN MF=15
68. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=14, MT= 3 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4225, MF=14, MT= 3
SECTION 14/ 3 NOT IN DIRECTORY RECORD NUMBER 6179
69. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=14, MT=102 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4225, MF=14, MT=102
SECTION 14/102 NOT IN DIRECTORY RECORD NUMBER 6181
70. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=15, MT= 3 (0): Directory (b)
- ERROR(S) FOUND IN MAT=4225, MF=15, MT= 3
SECTION 15/ 3 NOT IN DIRECTORY RECORD NUMBER 6184
71. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=15, MT=102 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF=15, MT=102
SECTION 15/102 NOT IN DIRECTORY

RECORD NUMBER 6632

72. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=33, MT= 1 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF=33, MT= 1
SECTION 33/ 1 NOT IN DIRECTORY

RECORD NUMBER 6787

73. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=33, MT= 2 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF=33, MT= 2
SECTION 33/ 2 NOT IN DIRECTORY

RECORD NUMBER 7007

74. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=33, MT= 4 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF=33, MT= 4
SECTION 33/ 4 NOT IN DIRECTORY

RECORD NUMBER 7227

75. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=33, MT= 16 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF=33, MT= 16
SECTION 33/ 16 NOT IN DIRECTORY

RECORD NUMBER 7294

76. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4225, MF=33, MT=102 (0): Directory (b)

ERROR(S) FOUND IN MAT=4225, MF=33, MT=102
SECTION 33/102 NOT IN DIRECTORY

RECORD NUMBER 7308

• **psyche** Warnings:

- Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 92. L = 1 / AT RESONANCE ENERGY 2.62200E+04 EV. THE GAMMA WIDTH 1.58000E+00 DEVIATES TOO MUCH FROM THE AVERAGE 2.79045E-01 (0): Gamma width

FILE 2

SECTION 151

ISOTOPE MASS = 92. L = 1

AT RESONANCE ENERGY 2.62200E+04 EV. THE GAMMA WIDTH 1.58000E+00 DEVIATES TOO MUCH FROM THE AVERAGE 2.79045E-01 (0): Gamma width

- Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 4.87000E-04 / ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 4.87000E-04 / DENSITY 1.31741E+03 SHOULD BE 1.12473E+03 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 4.87000E-04
ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 4.87000E-04
DENSITY 1.31741E+03 SHOULD BE 1.12473E+03

3. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 5.00000E+04. STRENGTH FUNCTION IS 4.87000E-04 / DENSITY 1.30450E+03 SHOULD BE 1.11371E+03 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 5.00000E+04. STRENGTH FUNCTION IS 4.87000E-04
DENSITY 1.30450E+03 SHOULD BE 1.11371E+03

4. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.00000E+04. STRENGTH FUNCTION IS 4.87000E-04 / DENSITY 1.29172E+03 SHOULD BE 1.10280E+03 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 6.00000E+04. STRENGTH FUNCTION IS 4.87000E-04
DENSITY 1.29172E+03 SHOULD BE 1.10280E+03

5. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 7.00000E+04. STRENGTH FUNCTION IS 4.87000E-04 / DENSITY 1.27907E+03 SHOULD BE 1.09201E+03 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 7.00000E+04. STRENGTH FUNCTION IS 4.87000E-04
DENSITY 1.27907E+03 SHOULD BE 1.09201E+03

6. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 8.00000E+04. STRENGTH FUNCTION IS 4.87000E-04 / DENSITY 1.26656E+03 SHOULD BE 1.08132E+03 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 8.00000E+04. STRENGTH FUNCTION IS 4.87000E-04
DENSITY 1.26656E+03 SHOULD BE 1.08132E+03

7. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 9.00000E+04. STRENGTH FUNCTION IS 4.87000E-04 / DENSITY 1.25418E+03 SHOULD BE 1.07075E+03 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 9.00000E+04. STRENGTH FUNCTION IS 4.87000E-04
DENSITY 1.25418E+03 SHOULD BE 1.07075E+03

8. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+05. STRENGTH FUNCTION IS 4.87000E-04 / DENSITY 1.24192E+03 SHOULD BE 1.06028E+03 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 1.00000E+05. STRENGTH FUNCTION IS 4.87000E-04
DENSITY 1.24192E+03 SHOULD BE 1.06028E+03

9. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 1.00000E-04 / ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 1.00000E-04 / DENSITY 1.14309E+03 SHOULD BE 8.78274E+02 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 1.00000E-04
ENERGY = 4.00000E+04. STRENGTH FUNCTION IS 1.00000E-04
DENSITY 1.14309E+03 SHOULD BE 8.78274E+02

10. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 5.00000E+04. STRENGTH FUNCTION IS 1.00000E-04 / DENSITY 1.13189E+03 SHOULD BE 8.69665E+02 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 5.00000E+04. STRENGTH FUNCTION IS 1.00000E-04
DENSITY 1.13189E+03 SHOULD BE 8.69665E+02

11. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.00000E+04. STRENGTH FUNCTION IS 1.00000E-04 / DENSITY 1.12080E+03 SHOULD BE 8.61147E+02 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 6.00000E+04. STRENGTH FUNCTION IS 1.00000E-04
DENSITY 1.12080E+03 SHOULD BE 8.61147E+02

12. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 7.00000E+04. STRENGTH FUNCTION IS 1.00000E-04 / DENSITY 1.10983E+03 SHOULD BE 8.52716E+02 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 7.00000E+04. STRENGTH FUNCTION IS 1.00000E-04
DENSITY 1.10983E+03 SHOULD BE 8.52716E+02

13. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 8.00000E+04. STRENGTH FUNCTION IS 1.00000E-04 / DENSITY 1.09897E+03 SHOULD BE 8.44374E+02 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 8.00000E+04. STRENGTH FUNCTION IS 1.00000E-04
DENSITY 1.09897E+03 SHOULD BE 8.44374E+02

14. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 9.00000E+04. STRENGTH FUNCTION IS 1.00000E-04 / DENSITY 1.08823E+03 SHOULD BE 8.36117E+02 (0): URR dens. (a)

```

FILE 2
SECTION 151
ENERGY = 9.00000E+04. STRENGTH FUNCTION IS 1.00000E-04
DENSITY 1.08823E+03 SHOULD BE 8.36117E+02

15. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+05. STRENGTH FUNCTION IS
1.00000E-04 / DENSITY 1.07759E+03 SHOULD BE 8.27945E+02 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 1.00000E+05. STRENGTH FUNCTION IS 1.00000E-04
DENSITY 1.07759E+03 SHOULD BE 8.27945E+02

16. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 103 / THE CALCULATED Q 3.60970E+05 DISSAGREES WITH
THE GIVEN Q 4.23561E+05 (0): Iffy Q

FILE 3
SECTION 103
THE CALCULATED Q 3.60970E+05 DISSAGREES WITH THE GIVEN Q 4.23561E+05

17. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 107 / THE CALCULATED Q 3.99992E+06 DISSAGREES WITH
THE GIVEN Q 3.70670E+06 (0): Iffy Q

FILE 3
SECTION 107
THE CALCULATED Q 3.99992E+06 DISSAGREES WITH THE GIVEN Q 3.70670E+06

18. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 203 / THE CALCULATED Q 3.60970E+05 DISSAGREES WITH
THE GIVEN Q 4.23561E+05 (0): Iffy Q

FILE 3
SECTION 203
THE CALCULATED Q 3.60970E+05 DISSAGREES WITH THE GIVEN Q 4.23561E+05

19. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 207 / THE CALCULATED Q 3.99992E+06 DISSAGREES WITH
THE GIVEN Q 3.70670E+06 (0): Iffy Q

FILE 3
SECTION 207
THE CALCULATED Q 3.99992E+06 DISSAGREES WITH THE GIVEN Q 3.70670E+06

```

- groupie Errors:

1. Very small elastic cross section found
0: *Small elastic*

Multi-Group and Multi-Band Parameters from ENDF/B Data (GROUPE 2015-2)

 ENDF/B Input and Output Data Filenames

ENDFB.IN

ENDFB.OUT

... [97 more lines]

- fudge-4.0 Warnings:

1. Missing a channel with a particular angular momenta combination
resonances / resolved / MultiLevelBreitWigner (Error # 0): missingResonanceChannel

WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"
 WARNING: Missing a channel with angular momenta combination L = 1, J = 0.5 and S = 1.5 for "capture"
 WARNING: Missing a channel with angular momenta combination L = 1, J = 1.5 and S = 1.5 for "capture"
 WARNING: Missing a channel with angular momenta combination L = 1, J = 2.5 and S = 1.5 for "capture"

2. Unnormalized outgoing probability distribution
*reaction label 17: n + Mo92_c / Product: n / Distribution: / energyAngular - XYs3d:
(Error # 0): Bad norm*

WARNING: Unnormalized distribution! At energy_in = 3728480. eV (index 0), integral = 0.5
 WARNING: Unnormalized distribution! At energy_in = 4028480. eV (index 1), integral = 0.664468189543
 WARNING: Unnormalized distribution! At energy_in = 5.e6 eV (index 2), integral = 0.89786588067
 WARNING: Unnormalized distribution! At energy_in = 6.e6 eV (index 3), integral = 0.922745720955
 ... plus 14 more instances of this message

3. Unnormalized outgoing probability distribution
reaction label 18: n[multiplicity:'2'] + Mo91 / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Bad norm

WARNING: Unnormalized distribution! At energy_in = 1.28314e7 eV (index 0), integral = 0.5
 WARNING: Unnormalized distribution! At energy_in = 1.31314e7 eV (index 1), integral = 0.664468189543
 WARNING: Unnormalized distribution! At energy_in = 1.4e7 eV (index 2), integral = 0.891949630155
 WARNING: Unnormalized distribution! At energy_in = 1.5e7 eV (index 3), integral = 0.916423928677
 ... plus 5 more instances of this message

4. Unnormalized outgoing probability distribution
*reaction label 19: n + H1 + Nb91 / Product: n / Distribution: / energyAngular - XYs3d:
(Error # 0): Bad norm*

WARNING: Unnormalized distribution! At energy_in = 7547550. eV (index 0), integral = 0.5
 WARNING: Unnormalized distribution! At energy_in = 7847550. eV (index 1), integral = 0.885803864887
 WARNING: Unnormalized distribution! At energy_in = 9.e6 eV (index 2), integral = 0.885804365468
 WARNING: Unnormalized distribution! At energy_in = 1.e7 eV (index 3), integral = 0.919853742125
 ... plus 10 more instances of this message

5. Unnormalized outgoing probability distribution
reaction label 21: n + He4 + Zr88 / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Bad norm

WARNING: Unnormalized distribution! At energy_in = 5685060. eV (index 0), integral = 0.5
 WARNING: Unnormalized distribution! At energy_in = 5985060. eV (index 1), integral = 0.68998589116
 WARNING: Unnormalized distribution! At energy_in = 9.e6 eV (index 2), integral = 0.689985271211
 WARNING: Unnormalized distribution! At energy_in = 1.e7 eV (index 3), integral = 0.698338869691
 ... plus 10 more instances of this message

6. For distributions, flat interpolation along incident energy is unphysical!
*production label 28: /reactionSuite/reactions/production[@label='28'] / Product: gamma
/ Distribution: / uncorrelated - energy - XYs2d: (Error # 0): flatIncidentEnergyInterpolation*

WARNING: For distributions, flat interpolation along incident energy is unphysical!

7. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 1: nonelastic (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.40%
8. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 2: (z,n) (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 1.03%
9. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 0 (total): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
10. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 0 (total): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
11. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 1 (n + Mo92): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
12. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 1 (n + Mo92): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
13. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 2 ((z,n)): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
14. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 3 (n[multiplicity:'2'] + Mo91): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
15. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 4 (Mo93 + gamma): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
16. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 4 (Mo93 + gamma): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

- fudge-4.0 Errors:

1. Calculated and tabulated Q values disagree.
reaction label 18: $n[\text{multiplicity:}'2'] + \text{Mo91}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -12660292.15335083 eV vs -1.26921e7 eV!

2. Calculated and tabulated Q values disagree.
reaction label 19: $n + \text{H1} + \text{Nb91}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7449668.458389282 eV vs -7465610. eV!

3. Calculated and tabulated Q values disagree.
reaction label 20: $\text{Mo93} + \text{gamma}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 8081672.808074951 eV vs 8067390. eV!

4. Calculated and tabulated Q values disagree.
reaction label 21: $n + \text{He4} + \text{Zr88}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5594954.90057373 eV vs -5623330. eV!

5. Calculated and tabulated Q values disagree.
reaction label 22: $\text{H1}[\text{multiplicity:}'2'] + \text{Zr91}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5409361.465026855 eV vs -5425680. eV!

6. Calculated and tabulated Q values disagree.
reaction label 23: $\text{H1} + \text{Nb92-s}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 437543.8301391602 eV vs 423561. eV!

7. Calculated and tabulated Q values disagree.
reaction label 24: $\text{H2} + \text{Nb91-s}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5225102.357452393 eV vs -5153620. eV!

8. Calculated and tabulated Q values disagree.
reaction label 25: $\text{H3} + \text{Nb90-s}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -11015364.19827271 eV vs -1.10275e7 eV!

9. Calculated and tabulated Q values disagree.
reaction label 26: $\text{He3} + \text{Zr90-s}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -4885772.387207031 eV vs -4898240. eV!

10. Calculated and tabulated Q values disagree.
reaction label 27: $\text{He4} + \text{Zr89-s}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 3722146.393310547 eV vs 3.7067e6 eV!

- njoy2012 Warnings:

1. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (0): HEATR/hinit (4)

```

---message from hinit---mf6, mt 16 does not give recoil za= 42091
one-particle recoil approx. used.

```
2. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (1): HEATR/hinit (4)

```

---message from hinit---mf6, mt 22 does not give recoil za= 42092
one-particle recoil approx. used.

```
3. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (2): HEATR/hinit (4)

```

---message from hinit---mf6, mt 28 does not give recoil za= 42092
one-particle recoil approx. used.

```
4. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (3): HEATR/hinit (4)

```

---message from hinit---mf6, mt 91 does not give recoil za= 42092
one-particle recoil approx. used.

```
5. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (4): HEATR/hinit (4)

```

---message from hinit---mf6, mt203 does not give recoil za= 41092
one-particle recoil approx. used.

```
6. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (5): HEATR/hinit (4)

```

---message from hinit---mf6, mt204 does not give recoil za= 41091
one-particle recoil approx. used.

```
7. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (6): HEATR/hinit (4)

```

---message from hinit---mf6, mt205 does not give recoil za= 41090
one-particle recoil approx. used.

```
8. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (7): HEATR/hinit (4)

```

---message from hinit---mf6, mt206 does not give recoil za= 40090
one-particle recoil approx. used.

```
9. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (8): HEATR/hinit (4)

```

---message from hinit---mf6, mt207 does not give recoil za= 40089
one-particle recoil approx. used.

```